



Winston H. Hickox
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



Gray Davis
Governor

October 22, 2002

#02-13

Glyn A.V. Owens
Commercial Director
PetroTechnik Ltd.
Maitland Road
Lion Barn Business Park
Needham Market
Ipswich, Suffolk, IP6 8NZ
UK

Dear Mr. Owens:

On January 28, 2002, you requested the California Air Resources Board (ARB) certification for PetroTechnik's UPP vapor return piping. This piping is used in Phase II vapor recovery applications utilizing underground storage tanks and buried vapor return piping.

The UPP Piping System consists of a high density polyethylene HDPE pipe with an internal nylon barrier lining which reduces permeation through the pipe. The pipes are connected by fusion welded joints and have full secondary containment. The UPP piping comes in two forms, rolls and straight lengths. **Only the piping that comes in straight lengths is evaluated for use as vapor return piping.**

As required by the Certification Procedures for Gasoline Vapor Recovery Systems at Service Stations, the approval of three State agencies are a precondition to certification by the ARB. The appropriate letters of approval have been received and are listed as follows:

- Department of Food and Agriculture
Division of Measurement Standards
June 19, 2002
- Department of Industrial Relations
Division of Occupational Safety and Health
October 3, 2002
- Department of Forestry and Fire Protection
Office of the State Fire Marshal
October 7, 2002

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

The UPP Piping system shall only be installed in GDFs with Phase II vapor recovery systems utilizing USTs and buried vapor return piping according to the manufacturer's specifications and requirements and the following vapor recovery piping specifications:

- 2" minimum diameter for runs between dispensers.
- 3" minimum diameter for main return lines from islands back to the underground storage tanks (USTs).
- Minimum 1/8" per foot slope from the dispensers and vent stacks back to the USTs. A slope of 1/4" per foot is recommended wherever feasible.
- USTs shall be manifolded together underground.
- Piping used for vapor piping shall be from straight pipe sections with a bend radius not to exceed six feet as determined by Proposed Test Procedure-201.2G. No piping sold or transported in rolls shall be used.
- Inspection and verification of proper slope are recommended after final grade of the pipe bedding has been established and prior to back-filling piping trenches. Bedding material (pea gravel or like) would need to be brought up to at least 50% and no more than 90% of pipe diameter prior to inspection.
- Back-pressure and liquid blockage testing of the vapor return piping from the dispensers to the USTs shall be performed after final grade of vapor return pipe bedding has been established and prior to back filling.
- Back-pressure and liquid blockage testing shall be performed once final grade of station has been established and all finished surfaces applied.
- At a minimum, back-pressure and liquid blockage testing of the UPP Phase II vapor return piping at GDFs shall be performed annually.

The straight length UPP Piping System, when installed in accordance with the manufacturer's instructions and the conditions listed above, will not adversely affect the performance of a Phase II vapor recovery systems utilizing underground storage tanks and buried vapor return piping. Therefore, the UPP Piping System is certified for use with Phase II vapor recovery systems that use underground storage tanks and buried vapor return piping and that are certified as of the issuance date of this approval letter.

If you have questions or need further assistance, please contact Ranjit Bhullar at (916) 327-8528 or via email at rbhullar@arb.ca.gov, or Paul Thalken at (916) 445-9499 or via email at pthalken@arb.ca.gov.

Sincerely,



William V. Loscutoff, Chief
Monitoring and Laboratory Division

cc: See Next Page

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cc: David Lyzinski
Petro Technik US Sales

Ben Shaw
South Coast AQMD

Theresa Sewell
Monterey Bay Unified APCD

Shahla Farahnak
State Water Resources Control Board